

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in this application:

LISTING OF CLAIMS:

Claims 1 to 27. (Canceled).

28. (Previously Presented) The atomization system of claim 35, wherein the metering device includes at least one opening for metering in fuel.

29. (Previously Presented) The atomization system of claim 35, wherein the metering device includes a fuel injector that ejects fuel in a manner that is metered.

30. (Previously Presented) The atomization system of claim 29, wherein the fuel injector ejects fuel in a manner that is swirled.

31. (Previously Presented) The atomization system of claim 30, wherein the fuel injector is a high pressure fuel injector operating with fuel pressures of 20 to 150 bar.

32. (Previously Presented) The atomization system of claim 35, wherein the temperature-adjusted substance stream flows through the supporting device.

Claims 33 and 34. (Canceled).

35. (Currently Amended) An atomization system for charging a chemical reformer for obtaining hydrogen, comprising:

a supporting device; and

at least one metering device accommodated in the supporting device for metering fuel into a temperature-adjusted substance stream, wherein the metering device introduces the fuel directly into the temperature-adjusted substance stream without interpolation of a supply line;

wherein the metering device is thermally insulated from the supporting device;

further comprising an insulating body, the metering device being thermally insulated by the insulating body; and

wherein the insulating body is at least partly made of a ceramic material; and
wherein the metering device is insulated from the supporting device by a first gap.

Claim 36. (Canceled).

37. (Previously Presented) An atomization system for charging a chemical reformer for obtaining hydrogen, comprising:

a supporting device; and

at least one metering device accommodated in the supporting device for metering fuel into a temperature-adjusted substance stream, wherein the metering device introduces the fuel directly into the temperature-adjusted substance stream without interpolation of a supply line;

wherein the metering device is thermally insulated from the supporting device;

further comprising an insulating body, the metering device being thermally insulated by the insulating body; and

wherein the metering device is insulated from the insulating body by a first gap.

38. (Previously Presented) An atomization system for charging a chemical reformer for obtaining hydrogen, comprising:

a supporting device; and

at least one metering device accommodated in the supporting device for metering fuel into a temperature-adjusted substance stream, wherein the metering device introduces the fuel directly into the temperature-adjusted substance stream without interpolation of a supply line;

wherein the metering device is thermally insulated from the supporting device;

further comprising an insulating body, the metering device being thermally insulated by the insulating body; and

wherein the metering device contacts the insulating body only to the extent to prevent the metering device from deflecting with respect to a longitudinal axis.

39. (Previously Presented) The atomization system of claim 37, wherein the supporting device includes a primary housing, through which the temperature adjusted substance stream flows, and an upper housing part not in direct contact with the primary housing.

40. (Previously Presented) The atomization system of claim 39, wherein the upper housing part is insulated from the primary housing by a second gap.

41. (Previously Presented) The atomization system of claim 39, wherein the upper housing part only directly contacts the insulating body.

42. (Previously Presented) The atomization system of claim 39, further comprising:

fixing elements which mutually lock the housing and the upper housing part in place.

43. (Previously Presented) The atomization system of claim 42, wherein the fixing elements are thermally insulated from at least one of the primary housing and the upper housing part by further insulating elements.

44. (Previously Presented) The atomization system of claim 43, wherein the further insulating elements are at least partly made of a ceramic material.

45. (Previously Presented) The atomization system of claim 39, wherein only the upper housing part supports the metering device.

46. (Previously Presented) The atomization system of claim 39, further comprising:

a seal between the metering device and the upper housing part that seals the first gap.

47. (Previously Presented) The atomization system of claim 46, wherein the seal is at least partly made of an elastomer.

48. (Previously Presented) The atomization system of claim 35, wherein the metering device meters fuel into a mixing area.

49. (Previously Presented) The atomization system of claim 48, wherein the temperature-adjusted substance stream is fed one of radially and at least partly tangentially into the mixing area through a supply line.

50. (Previously Presented) The atomization system of claim 49, wherein the primary temperature-adjusted substance stream fed from the supply line into the mixing area is directed away from the metering device as it enters the mixing area.

51. (Previously Presented) The atomization system of claim 39, wherein the primary housing includes a recess for inhibiting heat conduction.

52. (Currently Amended) ~~The An~~ atomization system of claim 35, for charging a chemical reformer for obtaining hydrogen, comprising:

a supporting device; and

at least one metering device accommodated in the supporting device for metering fuel into a temperature-adjusted substance stream, wherein the metering device introduces the fuel directly into the temperature-adjusted substance stream without interpolation of a supply line;

wherein the metering device is thermally insulated from the supporting device;

further comprising an insulating body, the metering device being thermally insulated by the insulating body; and

wherein the insulating body is at least partly made of a ceramic material; and

wherein the supporting device includes an outer surface having an area that increases at least one of by increments and continuously, starting from a flow outlet.

53. (Currently Amended) ~~The An~~ atomization system of claim 48, for charging a chemical reformer for obtaining hydrogen, comprising:

a supporting device; and

at least one metering device accommodated in the supporting device for metering fuel into a temperature-adjusted substance stream, wherein the metering

device introduces the fuel directly into the temperature-adjusted substance stream without interpolation of a supply line;

wherein the metering device is thermally insulated from the supporting device; further comprising an insulating body, the metering device being thermally insulated by the insulating body; and

wherein the insulating body is at least partly made of a ceramic material;

wherein the metering device meters fuel into a mixing area; and

wherein the supporting device includes an outer surface having an area that increases counter to a direction of flow prevailing within the supporting device, starting from the mixing area.